

Indoor viable mold spores – a comparison between two cities, Erfurt (eastern Germany) and Hamburg (western Germany)

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Abstract

Background: In eastern Germany, the prevalence of allergies is lower than in western Germany for both children and adults. Several reasons for this fact have been discussed, although it is still not completely understood. One purpose of the epidemiologic study “Indoor and genetic factors in asthma and allergy” (INGA) is to compare exposure to mold spores in two German cities. Therefore, 405 homes in Erfurt (east) and Hamburg (west) were visited twice by trained investigators between June 1995 and May 1997.

Methods: Samples of settled dust were taken by vacuuming from the carpet in the living room. Sieved house dust was diluted and plated on DG18 agar. The analyses were carried out in duplicate in the same laboratory.

Results: No significant difference could be shown for the total and for single genera (*Alternaria*, *Aspergillus*, *Cladosporium*, and *Penicillium*) in concentration of spores of viable fungi in settled house dust between Erfurt and Hamburg. Seasonal variation of the mold picture, with highest values in August, could be identified both indoors and outdoors.

Conclusions: Because that outdoor concentration is the main influence on indoor concentration of mold spores from June to October, we recommend sampling from November to May to evaluate exposure to indoor mold spores.

Citing Literature

